

REMARKS/ARGUMENTS

Claims 1 - 30 are pending.

Claims 1 - 30 were rejected under 35 U.S.C. § 103(a) for allegedly being unpatentable over Brodersen et al., U.S. Patent No. 6,266,669 in view of Haegele, U.S. Patent No. 6,192,373.

Independent claims 1, 3, 5, 7, 8, 20, 24, 25, 27, and 29 have been amended to more clearly distinguish over the cited art.

The Present Invention

The invention as recited in the pending claims is directed to processing a database query request. Aspects of the invention as recited in claim 1, for example, include "obtaining a first data item from a database table ... in response to a query request." A "second data item [is obtained] from an updated log file of said database system based on a value related to said first data item, said value being stored in said updated log file." A result to the query request is then produced by "integrating said first and second data items into an integration result, wherein said second data item comprises information indicative of an update time of said first data item."

The Brodersen et al. Reference

Brodersen et al. show in Fig. 1, a central database 3 located in a central computer 1. Remote systems 21-a through 21-c each contains a remote database 23-x comprising a partial replication of the central database 3. *Col. 5, lines 9 - 28*. Brodersen et al. disclose a method for maintaining one of the remote databases 23-a, such that updates made to the central database 3 or to the other remote databases are propagated to that remote database. *Col. 2, lines 34 - 38*. This is accomplished by a docking manager 25-x at each remote system and by a merge processor 7 at the central computer 1.

Each of the remote systems 21-x includes a docking manager 25-x. The purpose of the docking manager is to communicate an update log 35-x to a received node update log 19 stored in the central computer 1. The update log 35-x of each remote system records all updates

made to its remote database 23-x. *Col. 5, lines 27 - 38*. The node update log 19 in the central computer records updates made among all of the remote systems.

The merge processor 7 takes the information stored in the node update log 19 and updates the central database 3. Updates made to the central database by the merge processor 7 are logged in a central update log 15. *Col. 5, lines 39 - 50*. Brodersen et al. go on to explain that different portions of the central update log 15 are subsequently communicated to the remote systems 21-x, thereby selectively propagating updates to the central database 3 to the remote databases 23-x. *Col. 5, line 51 - col. 6, line 3*. This is accomplished by the log manager 9.

Brodersen et al. Do Not Show “integrating said first and second data items into an integration result ... [and returning it] as a result of said query request”

In Brodersen et al., the docking managers 25-x at each remote system 21-x and the merge processor 7 in the central computer 1 cooperate to update the central database 3 so that the central database 3 reflects the updates that have been performed at the remote databases 23-x. The activities performed by the docking managers and by the merge processor do not relate to servicing a query. However, the Office action asserts that these elements of Brodersen et al. show “integrating said first and second data items into an integration result” (*claim 1*), citing Brodersen et al. at col. 9, line 36 to col. 10, line 62. The cited portion discusses the operations of the docking managers and the merge processor.

An aspect of the present invention is “integrating said first and second data items into an integration result ... [and returning it] as a result of said query request.” The first data item is obtained “from a database system in response to a query request.” *Claim 1*. The second data item is obtained from a “log file of said database system.” It is earnestly and respectfully submitted that the Brodersen et al. docking manager 25-x and merge processor 7 do not show this aspect of the invention. First, the docking manager uploads update log information 35-x to the central computer 1; the update log information is not a first data item obtained from a query request. Second, the docking manager uploads update log information to the central computer 1 “at the convenience of the operator of node 21-a” (*col. 5, lines 29 - 30*); an action that is based on an operator’s convenience does not constitute obtaining a data item in response to a query request. Third, the docking managers 25-x upload their update log information into a received

node update log 19 in the central computer 1; the node update log is not an integration result [that is returned] as a result of said query request.

It is earnestly submitted that Brodersen et al. do not show this aspect of the present invention. Haegele does not appear to teach this aspect invention, and so the combined references do not render obvious the present invention. The Section 103 rejection of claim 1 is believed to be overcome.

Brodersen et al. and Haegele Do Not Render Obvious “obtaining a second data item from an updated log file of said database system based on a value related to said first data item.”

An aspect of the present invention is “obtaining a second data item from an updated log file of said database system based on a value related to said first data item.” *Claim 1.*

It appears the Office action cites a step 107 shown in the flowchart of Fig. 3 and to a discussion at col. 15, lines 1 - 11 in support of its assertion that Brodersen et al. show “obtaining a second data item from an updated log file of said database system.” Fig. 3 is a flow chart showing the processing in an update manager 31-x that is provided to each of the remote systems 21-x (Fig. 1). Referring to col. 8, line 60 and following, Brodersen et al. describe in Fig. 3 the steps for creating the update log 35-x at each remote system 21-x.

Brodersen et al. disclose at col. 15, lines 1 - 11 a Visibility Calculator to determine which portions of the node update log 19 will be communicated to each remote system 21-x. See col. 5, lines 27 - 38. Fig. 7 shows the operation of the Visibility Calculator as explained in col. 11, line 65 and following.

Haegele was cited for disclosing the idea of obtaining a second data item “based on a value related to said first data item.” The Office action asserted it would be obvious to incorporate this aspect of Haegele into Brodersen et al. to arrive at the foregoing recited aspect of the present invention. Counsel for Applicant respectfully and earnestly disagrees.

The Visibility Calculator of Brodersen et al. is a rule-based algorithm used in creating partial transaction logs 17-x (Fig. 1) from the node update log 19 in the central computer 1. These translations logs are then downloaded to respective remote systems. *Col. 11, lines 30 - 35 (partial transactions), col. 5, lines 57 - 58 (remote systems), col. 12, lines 15 - 25 (mention of rules).* Assuming *arguendo* that the Visibility Calculator teaches obtaining a “second data item”

from an update log, it is respectfully submitted that one of ordinary skill would not incorporate any teaching that the second data item is based on a "first data item" (that was obtained from a database query) since doing so eliminates the function of the Visibility Calculator.

Therefore, it is earnestly submitted that the combined teachings of Brodersen et al. and Haegele do not render obvious this aspect of the present invention. The Section 103 rejection of claim 1 is believed to be overcome.

Brodersen et al. and Haegele Do Not Suggest "wherein said second data item comprises information indicative of an update time of said first data item."

Neither reference shows "wherein said second data item comprises information indicative of an update time of said first data item." *Claim 1*. Information obtained from the Brodersen et al. Visibility Calculator constitute selective portions of the node update log 19. The information represents operations made to the central database 3, the information is not indicative of an update time of said first data item. Haegele relates to producing listings of caption sets in a database. There is no discussion of second data items comprising information indicative of an update time of said first data item. Therefore, it is earnestly submitted that the combined teachings of Brodersen et al. and Haegele do not render obvious this aspect of the present invention. The Section 103 rejection of claim 1 is believed to be overcome.

Claims 2 - 30

Claims depending from claim 1 are not obvious in view of Brodersen et al. and Haegele for the same reason or reasons that claim 1 is not obvious in view of these cited references. The apparatus and software claims corresponding to claim 1 are not obvious in view of Brodersen et al. and Haegele for the same reason or reasons that claim 1 is not obvious in view of these cited references. Claims 20 - 30 were rejected based on the reasons set forth in the rejection of the earlier claims. Therefore, claims 20 - 30 are not obvious in view of Brodersen et al. and Haegele for the same reason or reasons that claim 1 is not obvious in view of these cited references.

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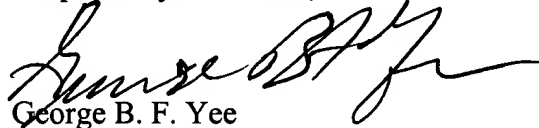
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CONCLUSION

In view of the foregoing, all claims now pending in this Application are believed to be in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,



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